Sub-Element 4.a—Plume Phase Field Measurements and Analysis (Continued)

What the Policy Says

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654, I. 9).

Extent of Play

Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. OROs should share data in a timely manner with all appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (for example, compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Preparing to Evaluate This Criterion

Before the exercise, determine, according to the ORO's plan/procedures and the Extent of Play agreement:

- What method is used to establish that the team is actually in the plume and not just in an area with an elevated radiation reading due to shine (cloud or ground)?
- If specified, what is the minimum acceptable ambient radiation reading before a meaningful air sample is to be taken?
- What method is specified to ensure that the plume has not shifted away from the sampling location or has not changed significantly in strength during the air sampling?
- What is the designated background exposure rate that requires moving to a low background area to count air sample media?
- If the field team does not count the air sample media in the field, what system is in place to get the sample media counted?
- How are field measurement results transmitted to the specified location?
- What procedures are used to ensure that samples transferred to other locations are handled in a way to maintain sample integrity? What information is required on chain-of-custody forms?
- What agency, if any, other than the ORO is to participate in this demonstration and what limitations or restrictions have been established?

During the Exercise

During the exercise, in addition to evaluating activities related to the items listed above, be sure to:

- Document all field team instructions and all measurement results that are transmitted to the appropriate location.
- Document all controller injects.
- Obtain copies of all work sheets completed by the field teams, if appropriate.
- Obtain a copy of any chain-of-custody forms that were completed.

Preparing	When researching the ORO's plan/procedures and the Extent of Play
to Evaluate	agreement, determine:
This	■ TO BE ADDED
Criterion	
During the	Evaluate activities related to the items listed above and note:
Exercise	TO BE ADDED